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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,233	08/03/2006	Michel Abittan	ABAL5001	1829
29889 7590 03/27/2008 OLIVE & OLIVE, P.A. 500 MEMORIAL STREET PO BOX 2049 DURHAM, NC 27702				
EXAMINER				
REESE, DAVID C				
ART UNIT		PAPER NUMBER		
3677				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/581,233

Applicant(s)

ABITTAN, MICHEL

Examiner

David C. Reese

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 10/15/2007.

- Claims 5 were added.
- Claims 1-4, 6-10 were amended.
- Claims 1-10 are pending.
- Replacement Drawings were filed for entry.

Drawings

[1] The drawing(s) were previously objected for informalities. In view of Applicant's replacement drawing(s) submitted on 11/28/2007, all previous objection(s) to the drawings have been withdrawn. Accordingly, the replacement drawing has been entered.

With the replacement drawings, however:

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 6-8. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

[2] The disclosure is objected to because of the following informalities: proper headings and sections as shown below are required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

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- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

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- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(c).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Objections

[3] Claim(s) 1-9 were previously objected to because of informalities. Applicant has successfully addressed these issues in the amendment filed on 10/15/2007. Accordingly, the objection(s) to the claim(s) 1-9 have been withdrawn.

However, as amended:

[4] Claims 5-10 are objected to because of the following informalities:

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). In the instant case, new claim 5 should have been submitted as new claim 10. In response to this office action, the applicant is required to fix the above issue. Further, claim 7 is labeled as being withdrawn when there is nothing in the prosecution of the case to show that it should be. In conclusion, the claim listing

should be renumbered to emulate that submitted on 6/2/2006, with claim 5 from the instant amendment moved to new claim 10.

Claim Rejections - 35 USC § 103

[5] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[6] Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schenck US-D35,937.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claims 1-5, Schenck discloses of a gemstone having a surface at least part of which is polished, characterized in that the polished surface comprises a plurality of adjacent facets (solely a-f), wherein the majority of facets are asymmetrically shaped (facets a-f are all different shapes), and wherein the plurality of facets (a-f) is not arranged in a symmetrical pattern (the plurality of facets, solely a-f, and only those labeled, are not arranged in a

symmetrical pattern with respect to one another and therefore Schenck meets this limitation) (Note only a plurality of adjacent facets, not all the facets, have been claimed).

The difference between the claim and Schenck is that Schenck does not expressly state of the exact number of facets per mm of surface of the polished gemstone (claims 1-2 and 5), as well as the exact angle by which the adjacent facets extend with respect to one another (claims 3-4). It would have been an obvious matter of design choice to modify the polished surface of Schenck to have the claimed number and angle of respective facets, since applicant has not disclosed that such a particular orientation creates any unexpected result. It appears that the invention would perform equally well as the invention disclosed by Schenck. It is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, orientation, angles, percentages, and create ranges for facets and the gemstone in its entirety as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

Further, it would have been obvious to a person of ordinary skill in the art to modify the number of facets per mm as well as the angle of one facet next to another as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, because the characteristics of the facets as claimed has the properties predicted by the prior

art, it would have been obvious to modify the facets number and size in order to gain the commonly understood benefits and applications of such an adaptation and/or modification.

Further, note that those of ordinary skill in the art would appreciate that a modification such as a mere change in shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966), and that those of ordinary skill in the art would appreciate that a modification such as a mere change in size of a component would be obvious. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Lastly, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to contrive any number of desirable ranges for the size and angle limitations disclosed by Applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Refer to MPEP § 2144.05.

Re: Claim 6, Schenck discloses characterized in that the facets (a-f) are applied along the surface of the stone.

Re: Claim 7, Schenck discloses characterized in that the facets (a-f) have a geometrical shape which may be regular or irregular.

Re: Claim 8, Schenck discloses characterized in that the facts (a-f) have virtually the same or different shapes.

Re: Claim 9, Schenck discloses characterized in that the gemstone has a contour and in that the facets (a-f) follow the contour of the stone.

Re: Claim 10, Schenck discloses characterized in that the gemstone is selected from the group of precious or semi-precious stones.

Response to Arguments

[7] Applicant's remarks, arguments, and affidavit filed 10/15/2007 regarding rejections under 35 U.S.C. 103 have been fully considered but they are not persuasive. Applicant argues that Schenck does not show of a majority of asymmetric facets not arranged in a symmetric pattern. The examiner disagrees. As articulated above, the examiner is interpreting claim 1 as follows:

comprises a plurality of adjacent facets (solely a-f), wherein the majority of facets are asymmetrically shaped (facets a-f are all different shapes), and wherein the plurality of facets (a-f) is not arranged in a symmetrical pattern (the plurality of facets, solely a-f, and only those labeled, are not arranged in a symmetrical pattern with respect to one another and therefore Schenck meets this limitation) (Note only a plurality of adjacent facets, not all the facets, have been claimed).

That is, facets a-f as shown by Schenck are asymmetric as they are all different shapes from one another and further, the six facets (a-f), when viewed with respect to just those facets, are not organized or arranged in any particular symmetric pattern.

As for the applicant's arguments concerning the unexpected improvements over the prior art, as well as the submitted affidavit, the examiner would like to reiterate that since no unexpected result, viewed by one skilled in the art; will occur, with any of the claimed number and size changes to the facets of the gemstone since it is extremely old, well known, readily

apparent and profoundly obvious to change the size, shape, orientation, angles, percentages, and create ranges for facets and the gemstone in its entirety as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. One changing the size of the facets and number of facets per mm would appreciate and expect changes in the structure of the overall gemstone including that stated above as well as the conservation of carat weight, minimizing carat weight loss, and the aforementioned brilliance, radiance, etc; all predictable variations of altering said features of a gemstone. Further, the affidavit seems to be more focused on the piecemeal analysis of the structure of the Schenck reference when the rejection is based on an obviousness rejection in view of Schenck.

Continuing, it is also pertinent to point out that the determining of obviousness does not require staying within the object of Schenck. "The question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (2007). In making the obviousness determination one "can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR*, 127 S.Ct. at 1741, 82 USPQ2d at 1396. "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 127 S.Ct. at 1742. 82 USPO2d at 1397. Further, when work is available in one field, design incentives and other market forces can prompt variations of it, either in the same field or in another. If a person of ordinary skill in the art can implement a predictable variation, and would see the benefit of doing so, §103 likely bars its patentability. Moreover, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize

that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill. A court must ask whether the improvement is more than the predictable use of prior-art elements according to their established functions. To facilitate review, this analysis should be made explicit. But it need not seek out precise teachings directed to the challenged claim's specific subject matter, for a court can consider the inferences and creative steps a person of ordinary skill in the art would employ. Pp. 11-14.

It can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known. Lastly, the examiner would like to point out that KSR forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. Ex parte Smith, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007).

Conclusion

[8] THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

[9] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Sandy can be reached at (571) 272-7073. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./
Examiner, Art Unit 3677

/Robert J. Sandy/
Acting SPE of Art Unit 3677